



Organizing for Differentiation in the Core Classroom

Cornell Elementary School, Iowa • January 2010

Topic: Response to Intervention in Elementary-Middle Math Practice: Intentional Teaching

Highlights

- This is a demonstration of a subtraction lesson focused on subtracting one-digit numbers from double-digit numbers and the concept of regrouping.
- Second-grade teacher Lori Bowman shows how to build differentiation into classroom instruction and provide opportunities for student practice.
- In her classroom, 80% of instructional time is spent in the whole group, while 20% is spent in teaching individuals or small groups.
- Small groups enable her to provide immediate corrective feedback and opportunities for group and independent student practice.
- · Bowman discusses how she uses white boards to check for understanding.
- She explains how she plans for reteaching "on the spot" by having materials readily available for students who are struggling.
- Learning centers are used to provide students with review and practice.
- She points out how differentiation often happens during the lesson and talks about using manipulatives and white boards to check for understanding and adjust instruction for struggling students.



About the Site

Cornell Elementary School

Des Moines, IA

Demographics

87% White

9% Hispanic

2% Black

2% Other

50% Free or Reduced-Price Lunch

4% English Language Learners

8% Special Education

Response to Intervention (known in Iowa as Instructional Decision Making or IDM) has been evolving at Cornell Elementary School over the past 15 years under the leadership of principal Deb Chiodo. The school has developed RtI practices over that time period with the assistance of the Heartland Area Education Agency and a regional technical assistance provider. Features of IDM (RtI) at Cornell include:

- A grade-level teaming structure led by the principal, and responsible for regular reviews of data, progress assessment, and planning interventions.
- Universal screening in reading and math followed by schoolwide data days.
- A variety of intervention structures including differentiated instruction in the core classroom and small-group interventions.
- Implementation of RtI in reading and math with positive behavior supports.

Full Transcript

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Welcome to Organizing for Differentiation in the Core Classroom.

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My name is Lori Bowman, and I am a second-grade teacher here at Cornell Elementary, in the Saydel School District.



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We were subtracting one-digit numbers from double-digit numbers, and it was the second time they have been exposed to that process. Before this we had been subtracting just the tens, and they did fairly well with that concept, and now we are moving into regrouping and not regrouping. And what I was trying to accomplish with this was just giving them the opportunity to work with some concrete materials and use those manipulatives to see what they are actually doing so it's not such a foreign concept of just trading and regrouping. Get them some practice with that, and after we are done with that as we are walking around trying to see who was grasping the concept and who wasn't, and then having some small-group practice time.

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At the beginning when we started the lesson, I was just doing a group thinkaloud and we really wanted to think about how kids demonstrate and be able to explain what they were doing when they were trying to solve those math problems. And all mental math at that point, but then also liking to show the concrete example on the whiteboard of what exactly they were thinking and to show other students that there are other ways to answer problems; there is not one set way. As we move we try to do lots of different examples of hands-on activities and paper-pencil tasks.

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Eighty percent of their time is spent whole group, and then 20% either individual or small group. I really enjoy working with the small groups, though, because I really can give those students that immediate feedback whether they are doing the right thing or not, and it's different every time. A lot of times it might be the same exact thing that we are doing as whole group, but just in a small-group setting. Other times we were getting manipulatives out that maybe we didn't use last time and just other techniques and processes that we are trying to help them key in to understanding what I am wanting them to know.

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I would also like to have them get the whiteboards out and let them actually try to do the algorithm with the dry-erase marker and just practice that, because I am not sure that they fully understand the regrouping concept yet and why we are regrouping. And I notice that even with my small group; they were still struggling, where those ten ones were coming from.



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I am trying to plan and help for the reteaching. I usually try to pass some activities that are ready for that chapter or that topic, and I would like to do them on the spot if I notice that lot of the class is struggling with whatever topic we are covering. I think it's important to do it right away and help those kids so they don't practice the wrong thing. We are going to redo parts of this lesson again just to help give students a boost on what we are expecting, because the next thing that we are moving into is double-digit subtraction and I really want them to feel comfortable and be able to do this automatically before we move on to that next step.

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I just really enjoy having the opportunity to let them go to centers, and they can review extra things that we maybe were struggling with before and I think we need a review on. And it also gives a chance for those students that have already mastered the concept that we are working on to be challenged a little bit to have some of those extra centers that are getting them thinking and pushing them a little bit too.

We go over the different strategies throughout our lessons and then I usually incorporate them into our centers as well. Right now, they are really struggling with sevens and eights, and so I have started putting that into a center where they can partner up and quiz each other on the different flash cards.

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At this point, we have our new curriculum. It does build in some different differentiation kinds of ideas. So I always have that available if I need it, but a lot of it happens just when we are going through the lesson. And it's just having things ready to go, whether it will be extra manipulatives or whiteboards or extra things to work with, because just you never know how many are going to understand it or how many are not and just it changes all the time.

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To learn more about Organizing for Differentiation in the Core Classroom, please explore the additional resources on the Doing What Works website.